K Karthik

List of Publications by Year in descending order

124 papers	3,902 citations	81900 39 h-index	144013 57 g-index
126 all docs	126 docs citations	126 times ranked	3025 citing authors

#	Article	IF	Citations
1	Nanostructured metal oxides and its hybrids for photocatalytic and biomedical applications. Advances in Colloid and Interface Science, 2020, 281, 102178.	14.7	202
2	Fabrication of MgO nanostructures and its efficient photocatalytic, antibacterial and anticancer performance. Journal of Photochemistry and Photobiology B: Biology, 2019, 190, 8-20.	3.8	178
3	Multifunctional properties of microwave assisted CdOâ€“NiOâ€“ZnO mixed metal oxide nanocomposite: enhanced photocatalytic and antibacterial activities. Journal of Materials Science: Materials in Electronics, 2018, 29, 5459-5471.	2.2	149
4	Biocompatible Carbon Quantum Dots Derived from Sugarcane Industrial Wastes for Effective Nonlinear Optical Behavior and Antimicrobial Activity Applications. ACS Omega, 2020, 5, 30363-30372.	3.5	99
5	Facile microwave-assisted green synthesis of NiO nanoparticles from Andrographis paniculata leaf extract and evaluation of their photocatalytic and anticancer activities. Molecular Crystals and Liquid Crystals, 2018, 673, 70-80.	0.9	98
6	Current Trends in MXene-Based Nanomaterials for Energy Storage and Conversion System: A Mini Review. Catalysts, 2020, 10, 495.	3.5	89
7	Nanostructured CdO-NiO composite for multifunctional applications. Journal of Physics and Chemistry of Solids, 2018, 112, 106-118.	4.0	88
8	New closed tube loop mediated isothermal amplification assay for prevention of product cross-contamination. MethodsX, 2014, 1, 137-143.	1.6	82
9	Structural studies of bio-mediated NiO nanoparticles for photocatalytic and antibacterial activities. Inorganic Chemistry Communication, 2020, 113, 107755.	3.9	80
10	Microwave-assisted synthesis of CdOâ€“ZnO nanocomposite and its antibacterial activity against human pathogens. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 139, 7-12.	3.9	77
11	Bio-engineered TiO ₂ nanoparticles using Ledebouria revoluta extract: Larvicidal, histopathological, antibacterial and anticancer activity. International Journal of Environmental Analytical Chemistry, 2021, 101, 2926-2936.	3.3	75
12	Effect of Immunomodulation and Immunomodulatory Agents on Health with some Bioactive Principles, Modes of Action and Potent Biomedical Applications. International Journal of Pharmacology, 2015, 11, 253-290.	0.3	75
13	Temperature-dependent magnetic anomalies of CuO nanoparticles. Solid State Communications, 2011, 151, 564-568.	1.9	71
14	Microwave assisted CdOâ€“ZnOâ€“MgO nanocomposite and its photocatalytic and antibacterial studies. Journal of Materials Science: Materials in Electronics, 2018, 29, 18519-18530.	2.2	71
15	Microwave assisted green synthesis of MgO nanorods and their antibacterial and anti-breast cancer activities. Materials Letters, 2017, 206, 217-220.	2.6	70
16	Ultrasound-assisted synthesis of V₂O₅ nanoparticles for photocatalytic and antibacterial studies. Materials Research Innovations, 2020, 24, 229-234.	2.3	69
17	Facile fabrication of CuO nanoparticles via microwave-assisted method: photocatalytic, antimicrobial and anticancer enhancing performance. International Journal of Environmental Analytical Chemistry, 2022, 102, 1095-1108.	3.3	69
18	Photocatalytic and antibacterial activities of hydrothermally prepared CdO nanoparticles. Journal of Materials Science: Materials in Electronics, 2017, 28, 11420-11429.	2.2	68

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19	Fabrication of ZnO-Fe-MXene Based Nanocomposites for Efficient CO2 Reduction. Catalysts, 2020, 10, 549.	3.5	68
20	Microwave-Assisted ZrO2 Nanoparticles and Its Photocatalytic and Antibacterial Studies. Journal of Cluster Science, 2019, 30, 311-318.	3.3	64
21	Ultrasonic-assisted CdOâ€“MgO nanocomposite for multifunctional applications. Materials Technology, 2019, 34, 403-414.	3.0	62
22	Photocatalytic, antibacterial and electrochemical properties of novel rare earth metal oxides-based nanohybrids. Materials Science for Energy Technologies, 2020, 3, 853-861.	1.8	61
23	Current Trends in the Application of Nanomaterials for the Removal of Pollutants from Industrial Wastewater Treatmentâ€”A Review. Molecules, 2021, 26, 2799.	3.8	61
24	Multifunctional properties of CdO nanostructures Synthesised through microwave assisted hydrothermal method. Materials Research Innovations, 2019, 23, 310-318.	2.3	60
25	Ultrasound-assisted Ta2O5 nanoparticles and their photocatalytic and biological applications. Microchemical Journal, 2019, 147, 749-754.	4.5	59
26	Microwave-assisted green synthesis of SnO₂ nanoparticles and their optical and photocatalytic properties. Molecular Crystals and Liquid Crystals, 2018, 671, 17-23.	0.9	58
27	Removal of metronidazole from wastewater by Fe/charcoal micro electrolysis fluidized bed reactor. Journal of Environmental Chemical Engineering, 2019, 7, 103457.	6.7	57
28	Photocatalytic and antimicrobial properties of microwave synthesized mixed metal oxide nanocomposite. Inorganic Chemistry Communication, 2021, 125, 108429.	3.9	54
29	Andrographis paniculata extract mediated green synthesis of CdO nanoparticles and its electrochemical and antibacterial studies. Journal of Materials Science: Materials in Electronics, 2017, 28, 7991-8001.	2.2	52
30	Enhanced Corrosion Protection of Epoxy/ZnO-NiO Nanocomposite Coatings on Steel. Coatings, 2020, 10, 783.	2.6	52
31	Multifunctional Applications of Microwave-Assisted Biogenic TiO2 Nanoparticles. Journal of Cluster Science, 2019, 30, 965-972.	3.3	51
32	Synthesis of Ag/Bi2MoO6 Nanocomposites Using NaBH4 as Reducing Agent for Enhanced Visible-Light-Driven Photocatalysis of Rhodamine B. Journal of Inorganic and Organometallic Polymers and Materials, 2020, 30, 322-329.	3.7	49
33	Structural and biological properties with enhanced photocatalytic behaviour of CdO-MgO nanocomposite by microwave-assisted method. Optik, 2020, 204, 164221.	2.9	49
34	Structural, optical and magnetic behaviors of Fe/Mn-doped and co-doped CdS thin films prepared by spray pyrolysis method. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	46
35	Effect of pH on Phase, Morphology and Photocatalytic Properties of BiOBr Synthesized by Hydrothermal Method. Journal of Inorganic and Organometallic Polymers and Materials, 2020, 30, 714-721.	3.7	46
36	Hibiscus subdariffa leaf extract mediated 2-D fern-like ZnO/TiO2 hierarchical nanoleaf for photocatalytic degradation. FlatChem, 2020, 24, 100197.	5.6	46

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37	Preparation of novel chitosan polymeric nanocomposite as an efficient material for the removal of Acid Blue 25 from aqueous environment. International Journal of Biological Macromolecules, 2021, 168, 760-768.	7.5	46
38	Facile microwave-assisted synthesis of metal oxide CdO-CuO nanocomposite: Photocatalytic and antimicrobial enhancing properties. Optik, 2020, 218, 165112.	2.9	45
39	Effect of Mg/Co on the properties of CdS thin films deposited by spray pyrolysis technique. Current Applied Physics, 2019, 19, 1136-1144.	2.4	44
40	Bioinspired fluorescence carbon quantum dots extracted from natural honey: Efficient material for photonic and antibacterial applications. Nano Structures Nano Objects, 2020, 24, 100589.	3.5	44
41	Dielectric and antibacterial studies of microwave assisted calcium hydroxide nanoparticles. Journal of Materials Science: Materials in Electronics, 2017, 28, 16509-16518.	2.2	42
42	Synthesis and Characterization Ag Nanoparticles Supported on Bi2WO6 Nanoplates for Enhanced Visible-Light-Driven Photocatalytic Degradation of Rhodamine B. Journal of Inorganic and Organometallic Polymers and Materials, 2020, 30, 1033-1040.	3.7	42
43	Bioengineered silver nanoparticles using Elytraria acaulis (L.f.) Lindau leaf extract and its biological applications. Biocatalysis and Agricultural Biotechnology, 2020, 27, 101690.	3.1	41
44	Investigations on the enhanced photocatalytic activity of (Ag, La) substituted nickel cobaltite spinels. Solid State Sciences, 2019, 98, 105992.	3.2	39
45	Facile synthesis of NiO-CYSO nanocomposite for photocatalytic and antibacterial applications. Inorganic Chemistry Communication, 2020, 122, 108307.	3.9	39
46	Study on the electrochemical performance of ZnO nanoparticles synthesized via non-aqueous sol-gel route for supercapacitor applications. Materials Research Express, 2019, 6, 105525.	1.6	38
47	Influence of nanotechnology to combat against COVID-19 for global health emergency: A review. Sensors International, 2021, 2, 100079.	8.4	38
48	Physico-chemical properties and antibacterial activity of Hexakis (Thiocarbamide) Nickel(II) nitrate single crystal. Chemical Data Collections, 2019, 21, 100229.	2.3	37
49	Influence of Sn and Mn on structural, optical and magnetic properties of spray pyrolysed CdS thin films. Materials Research Innovations, 2020, 24, 82-86.	2.3	37
50	Fluorescent carbon quantum dots from Ananas comosus waste peels: A promising material for NLO behaviour, antibacterial, and antioxidant activities. Inorganic Chemistry Communication, 2021, 124, 108397.	3.9	30
51	Facile fabrication of novel ceria-based nanocomposite (CYO-CSO) via co-precipitation: Electrochemical, photocatalytic and antibacterial performances. Journal of Molecular Structure, 2022, 1256, 132519.	3.6	30
52	Y3+ and Sm3+ co-doped mixed metal oxide nanocomposite: Structural, electrochemical, photocatalytic, and antibacterial properties. Applied Surface Science Advances, 2021, 4, 100085.	6.8	29
53	Indonesian Kaolin supported nZVI (IK-nZVI) used for the an efficient removal of Pb(II) from aqueous solutions: Kinetics, thermodynamics and mechanism. Journal of Environmental Chemical Engineering, 2021, 9, 106483.	6.7	25
54	Metal-Doped Graphitic Carbon Nitride Nanomaterials for Photocatalytic Environmental Applicationsâ€"A Review. Nanomaterials, 2022, 12, 1754.	4.1	24

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55	Tartaric acid-assisted precipitation of visible light-driven Ce-doped ZnO nanoparticles used for photodegradation of methylene blue. Journal of the Australian Ceramic Society, 2020, 56, 1029-1041.	1.9	23
56	Heterostructure of polyoxometalate/zinc-iron-oxide nanoplates as an outstanding bifunctional electrocatalyst for the hydrogen and oxygen evolution reaction. Journal of Colloid and Interface Science, 2022, 618, 419-430.	9.4	23
57	Structural and optical properties of microwave assisted CdO-NiO nanocomposite. AIP Conference Proceedings, 2016, , .	0.4	22
58	Investigations on structural, optical, dielectric, electronic polarizability, Z-scan and antibacterial properties of Ni/Zn/Fe2O4 nanoparticles fabricated by microwave-assisted combustion method. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 402, 112794.	3.9	21
59	Microwave-assisted V2O5 nanoflowers for efficient lithium-ion battery. Materials Research Innovations, 2019, , 1-5.	2.3	19
60	Larvicidal and histopathology effect of endophytic fungal extracts of Aspergillus tamarii against Aedes aegypti and Culex quinquefasciatus. Heliyon, 2020, 6, e05331.	3.2	18
61	Enhanced Photocatalytic and Antibacterial Activities of ZnSe Nanoparticles. Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 4390-4401.	3.7	18
62	Effect of annealing on the structural, morphological, optical and electrical properties of Al-Zn co-doped SnO₂ thin films. Materials Research Innovations, 2020, 24, 193-201.	2.3	17
63	Effect of cerium on electrochemical properties of V2O5 nanoparticles synthesized via non-aqueous sol-gel technique. Ionics, 2020, 26, 905-912.	2.4	17
64	CdS-sensitized single-crystalline TiO2 nanorods and polycrystalline nanotubes for solar hydrogen generation. Journal of Materials Research, 2013, 28, 418-423.	2.6	16
65	Nonâ€Invasive Diabetic Sensor Based on Cellulose Acetate/Graphene Nanocomposite. Macromolecular Symposia, 2020, 392, 2000024.	0.7	15
66	Optimization of TiO2-P25 photocatalyst dose and H2O2 concentration for advanced photo-oxidation using smartphone-based colorimetry. Water Science and Technology, 2021, 84, 469-483.	2.5	15
67	Experimental and Theoretical Studies of Green Synthesized Cu2O Nanoparticles Using Datura Metel L. Journal of Fluorescence, 2022, 32, 559-568.	2.5	14
68	Growth, spectral, optical, thermal, electrical, mechanical and etching studies of organic single crystal: l-histidinium l-tartrate hemihydrate. Journal of Materials Science: Materials in Electronics, 2018, 29, 17323-17332.	2.2	13
69	Bioengineered metal and metal oxide nanoparticles for photocatalytic and biological applications: A review. Physics and Chemistry of Solid State, 2020, 21, 571-583.	0.8	13
70	Electrochemical performance and charge density distribution analysis of Ag/NiO nanocomposite synthesized from Withania somnifera leaf extract. Inorganic Chemistry Communication, 2022, 141, 109580.	3.9	13
71	Antibacterial activity and physico-chemical properties of metal-organic single crystal: Zinc (Tris) thiourea chloride. Chemical Data Collections, 2019, 24, 100279.	2.3	12
72	Green Synthesis, Characterization and Antibacterial Activity of SiO2â€“ZnO Nanocomposite by Dictyota bartayresiana Extract and Its Cytotoxic Effect on HT29 Cell Line. Journal of Cluster Science, 2022, 33, 2499-2515.	3.3	12

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73	Synthesis and Crystal Structure of a New Binuclear Copper(II) Carboxylate Complex as a Precursor for Copper(II) Oxide Nanoparticles. Journal of Structural Chemistry, 2019, 60, 1126-1132.	1.0	11
74	Facile low-temperature synthesis and application of La_{0.85}Sr_{0.15}Co_{0.85}Fe_{0.15}O_{3-Î´} as superior cathode for LT-SOFCs using C-TAB as surfactant. Materials Research Innovations, 2020, 24, 395-401.	2.3	11
75	Cost-effective method of Co-doped rare-earth-based ceria (Y-CGO) nanocomposite as electrolyte for LT-SOFCs using C-TAB as surfactant. Materials Research Innovations, 2020, 24, 414-421.	2.3	11
76	Polymers in electronics. , 2020, , 365-392.		10
77	A simple chemical precipitation of ceria based (Sm doped-CGO) nanocomposite: structural and electrolytic behaviour for LT-SOFCs. SN Applied Sciences, 2020, 2, 1.	2.9	10
78	Functionalization and partial grafting of the reduced graphene oxide with p-phenylenediamine: An adsorption and photodegradation studies. FlatChem, 2021, 26, 100210.	5.6	10
79	Investigation on nonlinear optical and antibacterial properties of organic single crystal: p-Toluidinium L-Tartrate. Chemical Data Collections, 2021, 31, 100640.	2.3	10
80	OLIVE MILL WASTEWATER (OMW) TREATMENT BY HYBRID PROCESSES OF ELECTROCOAGULATION/CATALYTIC OZONATION AND BIODEGRADATION. Environmental Engineering and Management Journal, 2020, 19, 1401-1410.	0.6	9
81	Electrical and Electrochemical Characteristics of Withania somnifera Leaf Extract Incorporation Sodium Alginate Polymer Film for Energy Storage Applications. Journal of Inorganic and Organometallic Polymers and Materials, 2022, 32, 583-595.	3.7	9
82	Degradation of p-nitroaniline from aqueous solutions using ozonation/Mg-Al layered double hydroxides integrated with the sequencing batch moving bed biofilm reactor. Journal of the Taiwan Institute of Chemical Engineers, 2020, 113, 241-252.	5.3	8
83	Photocatalytic degradation of dyes by cobalt ferrite nanoparticles synthesized by sol-gel method. AIP Conference Proceedings, 2020, , .	0.4	8
84	Structural and functional properties of rare earth-based (NiO-CGO) nanocomposite produced by effective multiple doping approach via co-precipitation. Materials Technology, 2021, 36, 296-307.	3.0	8
85	New camphor hybrids: lipophilic enhancement improves antimicrobial efficacy against drug-resistant pathogenic microbes and intestinal worms. Medicinal Chemistry Research, 2018, 27, 1728-1739.	2.4	7
86	Apoptosis and Other Alternate Mechanisms of Cell Death. Asian Journal of Animal and Veterinary Advances, 2015, 10, 646-668.	0.0	7
87	Influence of erbium, chromium-doped: Yttrium scandium-gallium-garnet laser etching and traditional etching systems on depth of resin penetration in enamel: A confocal laser scanning electron microscope study. Journal of Pharmacy and Bioallied Sciences, 2015, 7, 616.	0.6	7
88	Nano-sized neem plant particles as an electrode for electrochemical storage applications. Ionics, 2022, 28, 3787-3797.	2.4	7
89	CdS-sensitized TiO2 photoelectrodes for quantum dots-based solar cells. Journal of Materials Research, 2013, 28, 497-501.	2.6	6
90	Detailed study on reduction of hazardous Cr(VI) at acidic pH using modified montmorillonite Fe(II)-Mt under ambient conditions. Research on Chemical Intermediates, 2019, 45, 2357-2368.	2.7	6

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91	A polyaniline-coated ZnS/ZnO/FTO photoelectrode for improving photocorrosion prevention and visible light absorption. New Journal of Chemistry, 2019, 43, 16699-16705.	2.8	6
92	Green synthesis of Phenothiazinium Schiff base and its nano silver complex using egg white as a catalyst under solvent free condition. Materials Today: Proceedings, 2022, 55, 267-273.	1.8	6
93	Synthesis, Characterisation, and Antimicrobial Efficacy of Acid Fuchsin Schiff Base-Modified Silver Nanoparticles. Nanotechnologies in Russia, 2020, 15, 828-836.	0.7	5
94	Crystal growth and characterization of Benzimidazolium salicylate single crystal for nonlinear optical studies and antibacterial activity. Physics and Chemistry of Solid State, 2020, 21, 377-389.	0.8	5
95	Structural, morphological and optical studies of sol-gel engineered Sm3+ activated ZnO thin films for photocatalytic applications. Physics and Chemistry of Solid State, 2020, 21, 433-439.	0.8	5
96	Solvothermal/Hydrothermal Manufacturing of Carbon Nanotubes for Hydrogen storage: A Comparative Study. Physics and Chemistry of Solid State, 2020, 21, 700-706.	0.8	5
97	Rational Synthesis of Mixed Metal Oxide Clusters Supported on a Partially Etched MAX Phase for Efficient Electrocatalytic CO2 Conversion. Topics in Catalysis, 0, , 1.	2.8	5
98	Nanocellulose-based materials/composites for sensors. , 2021, , 185-214.		4
99	Metal-to-Semimetal Transition in Platinum Nanotubes: Dependence on Thickness. Journal of Physical Chemistry Letters, 2021, 12, 2183-2190.	4.6	4
100	Bioengineered TiO₂ Nanoparticles Using Andrographis alata (Vahl) Nees Leaf Extract and Their Antibacterial and Anticancer Activities. Macromolecular Symposia, 2021, 400, .	0.7	4
101	SYNTHESIS AND CHARACTERIZATION OF FeO NANOPARTICLES BY HYDROTHERMAL METHOD. Rasayan Journal of Chemistry, 2021, 14, 1985-1989.	0.4	3
102	Synthesis of AC@CuO-NWs and removal of basic dye from wastewater. Materials Today: Proceedings, 2022, 53, 336-338.	1.8	3
103	Review of photocatalytic and antimicrobial properties of metal oxide nanoparticles. Physics and Chemistry of Solid State, 2021, 22, 5-15.	0.8	2
104	Development of In-Situ Sensors for CO2 to Fuel Process. , 2020, , .		2
105	Synthesis and Characterization of Undoped and Mnâ€Doped Copper Oxide Nanoparticles. Macromolecular Symposia, 2021, 400, 2100122.	0.7	2
106	Two-dimensional based hybrid materials for photocatalytic conversion of carbon dioxide into hydrocarbon fuels: A mini review. Physics and Chemistry of Solid State, 2021, 22, 132-140.	0.8	1
107	Manufacturing and Processing of Carbon Nanotubes for H2 Storage. Physics and Chemistry of Solid State, 2021, 22, 209-216.	0.8	1
108	Molecular identification of extended spectrum Î²-lactamases (ESBLs)-producing strains in clinical specimens from Tiruchirappalli, India. Applied Nanoscience (Switzerland), 0, , 1.	3.1	1

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109	Synthesis, characterization and biosensor applications of CuO-NiO nanocomposite. , 2020, , .		1
110	Facile Synthesis of Mesoporous Silica Nanoparticles and its Electrochemical Conversion of CO2 to Fuels. , 2020, , .		1
111	Growth, structural, optical and mechanical studies on Amino acids doped Nonlinear optical sodium acid phthalate single crystals. Physics and Chemistry of Solid State, 2022, 23, 45-51.	0.8	1
112	Introduction to Additive Manufacturing for Composites: State of the Art and Recent Trends. Composites Science and Technology, 2022, , 1-24.	0.6	1
113	Thermal, Electrical, and Sensing Properties of Recycled HDPE/Carbonaceous Industrial Waste Composites. Macromolecular Symposia, 2021, 400, .	0.7	1
114	Graphene Decorated TiO₂ Nanorods Photo-Anode for Solar Hydrogen Production. , 2015, , .		0
115	A Smart Parking System using Internet of Things with Automated Payment System for Smart Cities. , 2018, , .		0
116	Nanofunctionalized 3D printing. , 2021, , 457-504.		0
117	Emergent Nanomaterials and Their Composite Fabrication for Multifunctional Applications. , 2021, , 109-127.		0
118	Recent Advantages and Applications of Various Biosynthesized Greener Silver Nanoparticles. Asian Journal of Chemistry, 2021, 33, 2871-2884.	0.3	0
119	Corrosion Behavior of Epoxy/Zno-Nio Nanocomposite Coating on Steel Substrate. , 2020, , .		0
120	Construction of Modified CuO-Co3O4-ZnO Electrode for Acetone Detection in Breath. , 2020, , .		0
121	Thermal, Electrical, and Sensing Properties of Composite Material from Environmental and Industrial Wastage. , 2020, , .		0
122	Biosensing Studies on Cuo-Mgo Nanocomposites for Glucose Detection. , 2020, , .		0
123	Non-invasive Electrochemical Detection of Glucose using CuO-NiO/MXene Modified Electrode. , 2020, , .		0
124	Detection of Acetone in Breath Solution using Nanocomposite Ceo2-Nio-Zno. , 2020, , .		0